



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,499	07/16/2003	Masami Shirai	P23561	8848
7055	7590	08/28/2006	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			PRITCHETT, JOSHUA L	
			ART UNIT	PAPER NUMBER

2872

DATE MAILED: 08/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/619,499  
Filing Date: July 16, 2003  
Appellant(s): SHIRAI ET AL.

**MAILED**  
**AUG 28 2006**  
**GROUP 2800**

---

William S. Boshnick  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed July 16, 2003 appealing from the Office action mailed February 28, 2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

US 4,067,027	YAMAZAKI	01-1978
JP 10-239735	KOBAYASHI	09-1998
US 3,661,064	NORRIS	05-1972
US 6,603,134	WILD	08-2003

MERRIAM-WEBSTER'S COLLEGIATE DICTIONARY TENTH EDITION, 2001 p. 997

[www.photonics.com/dictHome.aspx](http://www.photonics.com/dictHome.aspx)

Definition for reticle

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 112***

Claims 1-8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 1, the newly added limitation defining the theoretical position is not present in the specification, claim language or drawings as originally filed. The new limitations have language relating to the position of optical elements when focusing light; however the drawings and the specification never show any relation between the theoretical position and the focusing of light on certain elements. The only reference to the theoretical position in the specification is on page 37, which says that the theoretical position is determined by the cam groove shown in Fig. 9. Fig. 9 shows nothing about how light is focused within the optical system.

Claims 2-8 depend from claim 1 and inherit the deficiencies thereof.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki (US 4,067,027) in view of Kobayashi (JP10-239735).

Regarding claim 1, Yamazaki teaches an observation device (Fig. 3) with a photographing function (col. 1 lines 5-10), having an observation optical system and a photographing optical system (col. 1 lines 5-10), the observation optical system being utilized as a focusing device for the photographing optical system (col. 2 lines 58-68), the observation optical system comprising, a first focusing mechanism that focuses the observation optical system so as to observe a close-range view through the observation optical system (col. 2 lines 58-68); a second focusing mechanism that focuses the photographing optical system so as to photograph as close-range view through the photographing optical system (col. 2 lines 58-68); an association mechanism that associates the first and second focusing mechanism with each other in such a manner that the observation optical system and the photographing optical system are always kept in a focused state (col. 2 lines 58-68; col. 3 lines 13-15); an objective (11) on which a reticle can be formed provided in the observation optical system with a predetermined dioptric power during an operation of the association mechanism (col. 2 lines 58-68). Based on the specification, drawings and newly amended claim language of the current invention, Yamazaki

Art Unit: 2872

teaches the same location relationship between the theoretical position and the photographic optical system for a person with perfect (ie. 20/20) vision or a person wearing corrective glasses or contact lenses. Yamazaki lacks specific reference to a reticle and the dioptric power difference between the eye and the ocular lens system and the objective lens system and the observation optical lens system being cancelled. It is extremely well known in the art to provide a reticle on an objective lens for the purpose of providing scale or targeting of an object viewed through the objective. Official Notice is taken. Kobayashi teaches correcting the cam of the moving lens to amend the diopter for the purpose of eliminating a difference between the dioptric powers (para. 0034; translation from the PAJ website). Kobayashi teaches the correction works for both close and far distances (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the Yamazaki reference include a reticle as is known in the prior art for the purpose of providing scale or targeting of an object viewed through the objective. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the ocular lens system of the Yamazaki reference positioned so as to cancel the dioptric power difference as taught by Kobayashi for the purpose of allowing the user to see a clear image of the viewed object.

Regarding claim 2, Yamazaki teaches the invention as claimed but lacks specific reference to the use of an arithmetic mean to measure the dioptric power difference. It is extremely well known in the art to use an arithmetic mean to measure the dioptric power difference between optical elements. Official Notice is taken. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have the Yamazaki

Art Unit: 2872

invention use an arithmetic mean to determine the dioptric power difference as is known in the art for the purpose of obtaining a reliable value for the dioptric power different.

Regarding claim 3, Yamazaki teaches the association mechanism comprises a rotary wheel member (14) having a manually operated rotary wheel; the observation optical system comprises two optical system elements that are movable along the optical axis of the observation optical system to focus the observation optical system (Fig. 3; col. 2 lines 58-68); the first focusing mechanism forms a first movement-conversion mechanism for converting a rotation movement of the rotary wheel member into a relative back and forth movement of the two optical system elements (col. 2 lines 58-68); the photographing optical system is movable relative to an imaging plane along the optical axis of the photographing optical system to focus the photographing optical system; and the second focusing mechanism forms a second movement conversion mechanism for converting a rotation movement of the rotary wheel member into a back and forth movement of the photographing optical system elements relative to the image plane (col. 2 lines 58-68).

Regarding claim 4, Yamazaki teaches the rotary wheel member comprises a rotary wheel cylinder in which a lens barrel is housed so as to be movable along the central axis of the rotary wheel cylinder (Fig. 3), the photographing optical system is housed in the lens barrel; the second movement conversion mechanism comprises a first cam groove formed in one of the rotary wheel cylinder and the lens barrel; and a first cam follower formed in the other of the rotary wheel cylinder and the lens barrel; and the first cam groove is formed in such a manner that a rotational movement of the rotary wheel cylinder is converted into a back and forth movement of the lens barrel along the central axis of the rotary wheel cylinder (Fig. 3; col. 2 lines 58-68).



Regarding claim 5, Yamazaki teaches the rotary wheel member comprises a rotary wheel cylinder in which a lens barrel is housed so as to be movable along the central axis of the rotary wheel cylinder (Fig. 3), the observation optical system is housed in the lens barrel; the first movement conversion mechanism comprises a second cam groove formed in one of the rotary wheel cylinder and the lens barrel; and a second cam follower formed in the other of the rotary wheel cylinder and the lens barrel; and the second cam groove is formed in such a manner that a rotational movement of the rotary wheel cylinder is converted into a back and forth movement of the lens barrel along the central axis of the rotary wheel cylinder (Fig. 3; col. 2 lines 58-68).

Regarding claim 6, Yamazaki teaches the observation optical system forms a pair, so that the observation optical device function as a binocular telescope with a photographing function (Fig. 3).

Regarding claim 7, Yamazaki teaches the pair of observation optical systems are mounted on an optical system mount plate that comprises a first and second plates that are movable relative to each other, one of the pair of observation optical systems is placed on the first plate and the other of the pair of optical systems is placed on the second plate, so that the distance between the optical axes of the pair of observation optical systems is adjusted by changing the relative positions of the first and second plates (Fig. 3; col. 2 lines 55-57).

Regarding claim 8, Yamazaki teaches the first and second plates are linearly moved relative to each other so that the optical axes of the pair of observation are moved in a predetermined plane, whereby the distance between the optical axes of the pair of observation optical systems is changed (col. 2 lines 55-57).

**(10) Response to Argument**

Applicant argues on pages 11-14 of Appeal Brief, one of ordinary skill in the art would understand the theoretical position as recited in the claims based on the specification and drawings. The claim limitations from claim 1 regarding the theoretical position are as follow, “the photographic optical system I positioned at an object side, in relation to a theoretical position determined when the photographing optical system focuses on an object...the theoretical position is defined as a position of said photographic optical system such that, when an image observed through said observation optical system is focused on said reticle, the image obtained by said photographic optical system is also focused.” The only time in the entire specification theoretical position is mentioned is on page 37 lines 14-18, which state, “the photographing optical system 68 is positioned at a front side (the object side, i.e., the left side in Fig. 13) in comparison with a theoretical position (i.e., a position determined by the cam groove shown in Fig. 9).” There is no definition of theoretical position as the position of the photographic optical system, on the contrary, the position of the photographic optical system as set forth in the specification is at a different position “in comparison with a theoretical position.” The limitations regarding the theoretical position were first added in Amendment filed March 2, 2005. Additional limitations regarding the theoretical position were added as part of a Request for Continued Examination filed July 19, 2005 to enter an Amendment after Final Rejection filed June 17, 2005. Clearly the claims cannot provide a basis for support of the limitations for the theoretical position limitations within the original presentation of the application. The applicant has presented informal figures to attempt to clarify what the intended definition of a theoretical

position. These figures are not part of the original disclosure and cannot therefore overcome the 35 U.S.C. 112 1<sup>st</sup> paragraph rejection. Further, even if these figures were to clarify the definition of a theoretical position the figures are not based solely on the original disclosure and the ability of one of ordinary skill in the art to interpret the original disclosure, but include additional knowledge not conveyed in the original disclosure. For example, the placement of the lenses shown in the example figures is not shown in the original disclosure. Based on the specification the theoretical position is only determined by the cam groove shown in Fig. 9, it says nothing about a lens or if the theoretical position is at the same location as the lens or a fixed point along the cam groove. Clearly the original disclosure lacks support for the limitations regarding the theoretical position added through amendments.

Applicant argues on pages 15-17 of Appeal Brief, the prior art fails to each the claimed reticle limitation. Examiner admits both the Yamazaki reference and the Kobayshi reference do not expressly teach a reticle. In the rejection above the Examiner uses Official Notice to teach a reticle is extremely well known in the art. Applicant had not previously requested evidence from the Examiner to support the use of Official Notice. Support for Official Notice can be found in Norris (US 3,661,064), which teaches the use of a reticle (abstract) in a system similar to the Yamazaki reference. Further evidence can be found in Wild (US 6,603,134), which teaches a reticle (118) as part of an objective lens system (Fig. 8). Additional evidence can be found in the definition of the term reticle. Merriam-Webster's defines a reticle as "a scale on transparent material (as in an optical instrument) used esp. for measuring or aiming." The online Photonics Dictionary defines reticle as, "an optical element located at an image plane, containing a pattern that assists in point an instrument or measuring target characteristics." As the evidence shows,

Art Unit: 2872

the use of reticles in objective lens systems viewed by observers is commonly known for measuring and targeting precisely as stated in the rejection above. Binocular lens systems focus the incoming light on the objective lens system, thus the limitations set forth by the applicant's claim language are well known in the art.

Applicant argues on page 16 of Appeal Brief, the Kobayashi reference does not teach or suggest the objected contained in the close-range view is observed; the photographing optical system is positioned at an object side, in relation to a theoretical position. The actual location of the theoretical position cannot be determined from the claim language, specification or the drawings. Therefore, theoretical position could be any number of places along the cam groove of the photographing lens of Kobayashi. For example, the claim language, specification and drawings would allow an interpretation of the theoretical position to be at the very tip of the cam groove on the object side, thus the theoretical position would almost always be on the object side of the photographing optical system.

Applicant argues on pages 17-18 of Appeal Brief, "it was unexpectedly determined that the 'observer's eye focus on the object image at a position slightly offset from the in-focus position.'" Applicant has provided no evidence of unexpected results. No 37 CFR 1.132 affidavit is present in the current application. Therefore, applicant's claim to unexpected results is not persuasive.

Applicant argues on pages 18-21 of Appeal Brief, the prior art fails to teach the limitations of the dependent claims. Applicant fails to point out or specifically discuss deficiencies in the prior art. Therefore, these arguments are not persuasive.

Art Unit: 2872

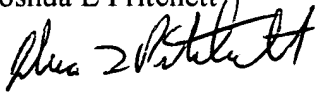
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.


For the above reasons, it is believed that the rejections should be sustained.

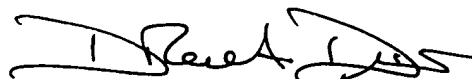
Respectfully submitted,

Joshua L Pritchett



Conferees:

Drew Dunn 

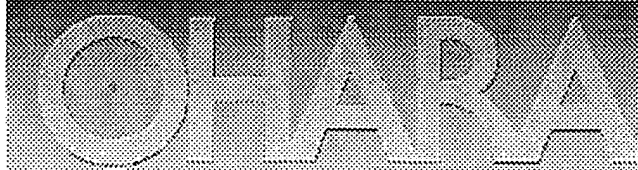


**DREW A. DUNN**  
**SUPERVISORY PATENT EXAMINER**

Ricky Mack



## Photonics Dictionary



Optical Glass



Glass Ceramics

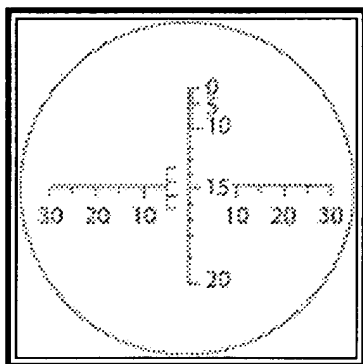
[Explore Photonics.com](#)[Entire Site](#)[Register for e](#)[Photonics.com Home](#)[Directory Home](#)[Buyers' Guide](#)[Corporate Guide](#)[Handbook](#)[Dictionary](#)[Societies & Universities](#)[Upda](#)

### reticle

[See PREVIOUS](#) | [NEXT term in listing](#)

#### Definition:

An optical element located at an image plane, containing a pattern that assists in pointing an instrument or measuring target characteristics. It may be as simple as a pair of crossed lines or a complex pattern. In semiconductor pattern generation, a glass or quartz substrate bearing the image of an integrated circuit.

[Return to term listing for r](#)

or

[Click a letter to view a listing of terms](#)[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#)[O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)**Your Term of the Moment is...****base-altitude ratio**

**definition:** In aerial photography, the ratio derived from a stereoscopic pair of photographs that represents the air-base length divided by the flight altitude.



[Home](#) | [About Us](#) | [Advertising Info](#) | [News & Features](#) | [Photonics Spectra](#) | [Photonics Directory](#) | [Photonics Dictionary](#)

Laurin Publishing provides comprehensive worldwide coverage of the photonics industry: optics, lasers, imaging, fiber optics, el

© 1996-2006 Laurin Publishing. All rights reserved.

Photonics.Com is Registered with the U.S. Patent & Trademark Office.

[Privacy Policy](#) | [Terms and Conditions of Use](#)

Reproduction in whole or in part without permission is prohibited.  
[webmaster@laurin.com](mailto:webmaster@laurin.com)